

## Department of Biochemistry

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Dr. Maxine F. Singer Carnegie Institution of Washington 1530 P Street, Northwest Washington, DC 20005-1910

Dear Dr. Singer,

Gary Conrad passed on to me a copy of the letter that you sent him, August 16, in response to a request for potential applicants for a position of Assistant Professor of Biology here at KSU. Parts of that letter were quoted in news articles, but I felt that I had to respond to the letter itself and not something quoted out of context. You may recall that the issue you addressed was how to respond to the decision of the Kansas State Board of Education.

My specific concern is that you may not realize our situation. The adopted standards, as opposed to the work of the writing committee, really represent the status quo (ante-bellum?) and merely bring into the open the actual struggle that has gone on for decades. In fact, in many parts even the adopted standards are a big step forward. Most of the context for evolution remains part of the standards. There are good reasons why Larry Scharmann in our College of Education has run workshops on how to teach about evolution and has published on that work in American Biology Teacher. The issue of how to deal with creationists is a real and serious one in this state, but it is by no means new.

We have always dealt with unprepared students here at the university. In high school, a significant fraction were not taught about evolution, or were taught about it and explicitly rejected it. Some of those students are quite belligerent in their expression of dissatisfaction with the Principles of Biology course which is taught here because evolution is one of its major themes.

We had totally open admissions until two years ago with no specific entrance requirements. Yet K-State does rank first among public institutions in Truman and Marshall scholarships and about second in Rhodes. Getting a good education is possible here. I can speak only for the biochemistry major, but I can tell you that our better undergraduates are in high demand if they wish to go to graduate school and they are vigorously recruited.

The Kansas State Board of Education probably did a foolish thing, despite the efforts of a lot of scientists. However, you probably know that New Mexico is going through struggles with their science standards, several states already have potentially creationist options, and even in Pennsylvania there are legislators agitating to promote a creationist alternative. So it can happen most anywhere.

While you are free to express your opinions regarding what you would do for yourself or your children, please recognize that some of us feel an obligation as

teachers to try to improve the education of other children than our own. We do this by teaching what is important in what might be viewed by you as difficult circumstances. It is probably not helpful to that process to simply write off Kansas as a place to do science. While pure self-interest might point one toward the east and west coast for a science career, there are larger societal considerations that need to be evaluated. There is a lot of country between the coasts. Some things, like the Konza Prairie Research Natural Area are unique to Kansas.

I grew up in rural Pennsylvania and attended Haverford. Evolution was scarcely to be found in the index of our high school textbook "Modern Biology", which was the most widely used text of the time. My wife who has taught in Principles of Biology here for a number of years, grew up in Iowa and attended Swarthmore. So we both know the demands of elite institutions, and the reality of Middle America. While not the Bronx High School of Science, Manhattan high school and the nearby Wamego high school have sent a number of students to the International Science and Engineering Fair. I have served as mentor to some of those students and I don't regret the sort of education my children have received. We get our share of Merit Scholars.

I quite agree with you that " teaching biology without evolution would be like teaching civics without reference to the United States Constitution." However, I am perhaps a bit more sanguine than you are about the prospects for evolution. Even without mention, the U.S. Constitution looms so large in our experience that it will influence all we say in a civics class whether we invoke it or not. Likewise, evolutionary concepts are so deeply embedded into modern biology that even the creationists concede microevolution, and they don't dispute the established sequences of DNA and proteins. Evolution will happen whether they like it or not. So those of us who enjoy life out in the "buffalo commons" will continue trying to educate folks about how the world works. I would encourage you to send us like-minded colleagues. Perhaps then we can get the job done a bit faster.

Yours truly,

Lawrence C. Davis

Professor and Chair of the Graduate Biochemistry Group